APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,875	02/27/2002	Carl Mizuyabu	1376.0200080	4740

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EXAMINER
PATEL, NITIN C

ART UNIT	PAPER NUMBER
2116	

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
	10/083,875	MIZUYABU ET AL.
Office Action Summary	Examiner	Art Unit
	Nitin C. Patel	2116

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>08 November 2005</u>.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-53</u> is/are pending in the application.

     4a) Of the above claim(s) <u>2-7,14,15,19-27,29,30,33,39,40,44,47,49 and 50</u> is/are withdrawn from consideration.

5) ☒ Claim(s) <u>1,8-10,16-18,28,31,32,34-38,41-43,45,46, and 51-53</u> is/are allowed.

6) ☒ Claim(s) <u>11-13 and 48</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a) ☐ All   b) ☐ Some * c) ☐ None of:

       1. ☐ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____.

       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
     Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   This is in responsive to amendment filed on 8 November 2005.

2.   Claims 2 – 7, 14 – 15, 19 – 27, 29 – 30, 33, 39 – 40, 44, 47, 49, and 50 have

been cancelled.

3.   Claims 1, 8 – 10, 16 – 18, 28, 31 – 32, 34 – 38, 41 – 43, 45 – 46, and 51 – 53

are allowed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

   1.   Determining the scope and contents of the prior art.
   2.   Ascertaining the differences between the prior art and the claims at issue.
   3.   Resolving the level of ordinary skill in the pertinent art.
   4.   Considering objective evidence present in the application indicating
          obviousness or nonobviousness.

4.   Claims 11 – 13, and 48 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Kawasaki et al. [hereinafter as Kawasaki], US Patent 6,332,196 B1,

and further in view of Nishihara, US Patent 6,456,702 B2.

5.   As to claim 11, and 48, Kawasaki discloses an apparatus and method including

identifying an operating characteristic [first or second state] of an instruction buffer

state (buffer memory is empty) is detected by buffer monitor of buffer control means,

col. 6, lines 20 – 34, col. 9, lines 9 – 21, and 47 – 56] comprising at least one of a buffer

fullness [buffer memory is full/filled] or a rate of change of a number of pending

instructions stored in the instruction buffer; and adjusting a system characteristic based

on the operating characteristic, wherein a power consumption of a system is modified

based on the system characteristic [col. 1, lines 6 – 10, col. 3, lines 15 – 21, col. 4, lines

1 – 22, col. 9, lines 9 – 21, 47 – 56, col. 11, lines 32 – 60, col. 12, lines 24 – 67, col. 13,

lines 28 – 40, col. 14, lines 51 – 67, col. 15, lines 35 – 67, col. 16, lines 1 – 27, col.17,

lines 56 – 67, col. 18, lines 1 - 41].

However, Kawasaki's adjusting system characteristic does not teach explicitly of

modifying the clock speed.

Nishihara discloses an apparatus and method for adjusting the clock signal

depending on the buffer status signal including a buffer monitor for monitoring an

amount of data stored in buffer memory to produce a buffer status signal, and clock

adjuster to change a frequency [speed] of the clock signal [col. 1, lines 56 – 60, col. 2,

lines 62 – 66, col. 4, lines 44- 67, col. 5, lines 1 – 61, col. 7, lines 19 – 23].

It would have been obvious to one of ordinary skill in art, having the teachings of

Kawasaki and Nishihara before him at the time of invention was made, to modify power

consumption of system based on the system characteristic as disclosed by Kawasaki to

include adjusting a clock speed depending on the buffer status signal as taught by

Nishihara, in order to obtain an apparatus and method for a stable and reliable voice

communications without generating noise due to slips of voice data [col. 1, lines 40 –

43, col. 2, lines 25 – 34].

6.   As to claim 12, Nishihara discloses clock controller [21, fig. 1] with clock

generation [17] including generating plurality of different frequencies [normal, lower,

higher] therefore he teaches to modify amount of power needed for the clock speed [col.

2, lines 27 – 34, col. 6, lines 8 – 11, 27 – 30].

7.   Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Kawasaki et al. [hereinafter as Kawasaki], US Patent 6,332,196 B1, and further in view

of Nishihara, US Patent 6,456,702 B2 as applied to claims 11, above, and further in

view of Bucher, US Patent 6, 678,737 B1.

8.   As to claim 13, Kawasaki discloses an apparatus and method including

identifying an operating characteristic [first or second state] of an instruction buffer

[buffer memory], the operating characteristic [first (buffer memory is filled) or second

state (buffer memory is empty) is detected by buffer monitor of buffer control means,

col. 6, lines 20 – 34, col. 9, lines 9 – 21, and 47 – 56] comprising at least one of a buffer

fullness [buffer memory is full/filled] or a rate of change of a number of pending

instructions stored in the instruction buffer; and adjusting a system characteristic based

on the operating characteristic, wherein a power consumption of a system is modified

based on the system characteristic [col. 1, lines 6 – 10, col. 3, lines 15 – 21, col. 4, lines

1 – 22, col. 9, lines 9 – 21, 47 – 56, col. 11, lines 32 – 60, col. 12, lines 24 – 67, col. 13,

lines 28 – 40, col. 14, lines 51 – 67, col. 15, lines 35 – 67, col. 16, lines 1 – 27, col.17,

lines 56 – 67, col. 18, lines 1 - 41].

However, Kawasaki's adjusting system characteristic does not teach explicitly of modifying the clock speed.

Nishihara discloses an apparatus and method for adjusting the clock signal depending on the buffer status signal including a buffer monitor for monitoring an amount of data stored in buffer memory to produce a buffer status signal, and clock adjuster to change a frequency [speed] of the clock signal [col. 1, lines 56 – 60, col. 2, lines 62 – 66, col. 4, lines 44- 67, col. 5, lines 1 – 61, col. 7, lines 19 – 23].

However, neither Kawasaki nor Nishihara teaches that the system characteristic includes altering the number of bits used to represent multimedia data.

Bucher teaches home network appliance and method for data management for multimedia data including trans-coding of MPEG multimedia data by reducing number of bits that used to represents the data for particular portions of an image [col. 6, lines 51 – 65].

It would have been obvious to one of ordinary skill in art, having the teachings of Kawasaki, Nishihara and Bucher before him at the time of invention was made, to modify apparatus and method of method of identifying an operating characteristic [buffer state] including buffer fullness and modifying system power consumption based on system characteristic including modifying clock speed as disclosed by Kawasaki, Nishihara to include a trans-coding of MPEG multimedia data by reducing number of bits to represent multimedia data as taught by Bucher in order to obtain relatively simple processing of multimedia data with reduced Signal-to-noise ratio and saving valuable memory space [col. 6, lines 44 - 47, 55 – 65].

9.   **Examiner's note**: Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

10.   **Prior Art not relied upon**: Please refer to the references listed in attached PTO-892, which, are not relied upon for claim rejection since these references are relevant to the claimed invention.

Response to Arguments

11.   Applicant's arguments, for claims 11 – 13, and 48 see pages 7 – 9, filed 8 November 2005, with respect to the rejection(s) of claim(s) 11 – 13, and 48 under 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art references.

Reasons For Allowance

12.   The following is an examiner's statement of reasons for allowance: Applicant's claimed invention distinguishes over the prior art for following reasons. The independent claims 1, 28, and 38 are allowable over the ad of record and none of the references either alone or in combination, discloses or renders obvious a system and method to

identify the rate of change of number pf pending instructions stored in buffer and adjust

the system characteristics based on rate of change of number pf pending instrMctions.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Nitin C. Patel whose telephone number is 571-272-

3675. The examiner can normally be reached on 6:45 am - 5:15 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Lynne H. Browne can be reached on 571-272-3670. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nitin C. Patel
December 19, 2005

LYNNE H. BROWNE
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